

#### ABSTRACT

The restriction that the outer electrode of a conventional CVD film forming apparatus has to have a hollow structure including a hollow which is for accommodating a container and has a shape generally similar to the outer shape of the container is eliminated. A plasma CVD film forming apparatus is characterized in that a container outside gas is supplied into the space defined between the inner wall of an outer electrode and the outer surface of a container spaced from the inner wall, the plasma thereby produced from the container outside gas in forming a film by CVD serves as a conductor and transmits high-frequency to the outer wall of the container, a state is brought about in which the inner wall of the outer electrode is equivalently in contact with the outer surface of the plastic container, and a uniform self-bias voltage is applied to the inner wall of the container.